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## Abstract View

Volume 11, Issue 9 (September 1981)

**Journal of Physical Oceanography**
Article: pp. 1234–1247 | Abstract | PDF (757K)

# Internal Waves in the Upper Ocean

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(Manuscript received July 1, 1980, in final form May 22, 1981)

DOI: 10.1175/1520-0485(1981)011<1234:IWITUO>2.0.CO;2

ABSTRACT

Previous work has shown that the deep-ocean internal-wave field has little variability and can be described by a stationary spectrum. This analysis of upper-ocean internal-wave data supports the hypothesis that the variable upper-ocean (within the upper 200 m) internal-wave field can be represented as fluctuations superimposed on the base-state stationary spectrum, such as that given by the model Of Garrett and Munk. That is, we hypothesize that the variability is present in addition to the stationary background, rather than instead. The parameters of the Garrett-Munk model are particularized by a best fit to the deep-ocean IWEX data; the model is then directly compared to upper ocean internal-wave data from Cape Cod, FLIP, GATE, St. Croix, and the NRL towed chain. These data, properly interpreted line-sensor data, and the existence of a dynamic saturation mechanism are all consistent with the hypothesis.

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